

# **Quality Engineered Solutions**

Compounds, Cleated, and Vacuum Belt Solutions

Industrial Conveyor Belts Cover Compounds 14 Industrial Conveyor Belts Cover Compounds 15



# **Cover Compounds**

#### **General Purpose/Abrasion Resistant**

GII - General duty compound. Good abrasion, cut and gouge resistance makes it a smart economical choice.

**XT-GII** — Compound exceeds ARPM Grade 2 specs. Yields very good abrasion, tensile, tear and elongation values. Combine with a Legend carcass for a great performing belt.

**GI** – General purpose compound. Offers good abrasion, cut and gouge resistance. An excellent choice for handling larger rock or sharp, heavy material.

XT-GI – Exceeds ARPM Grade 1 specs. An excellent choice when better abrasion, cut and gouge resistance is required.

FF (Force Field) – Specially formulated for high-abrasion applications, Force Field is a superior compound, ready for the long haul.

**GI-P (Grade I Premium)** – Premium compound for heavy rock or high-impact applications. This unprecedented compound offers ultimate abrasion with high elongation and tensile strength to prevent tearing. Couple with a Viper or Legend Polyester/Nylon carcass for primary belt or under crusher belt.

#### **Oil/High Temperature Service**

**MOR (Moderately Oil Resistant)** – A compound formulated for handling oily products that contain, or will be coated with light oils such as pine chips, grains, coke or oil-treated coal.

**XT-MOR** – Moderately oil-resistant version of the XT-GII compound, it offers a higher degree of oil and abrasion resistance. It is a good compound for handling moderately oily material to resist the terpene content of wood chips and other oily grains.

**HH (High Heat)** – An EPDM with good-to-excellent heat resistance at temperatures reaching 400°F. It offers outstanding ozone and oxidation resistance, as well as good abrasion resistance. Ideal for handling high temperature and very abrasive products, like clinker.

**HAHOR (Hot Asphalt/Heat and Oil Resistant)/VOR (Very Oil Resistant)** — A high-heat NBR formulated to withstand the high temperatures and heavy oils of the asphalting industry. It offers good abrasion and excellent oil resistance. Heat resistant up to 350°F, but only achievable when heavy oil is present; without the presence of oil, not rated above 150°F.



	Test Standard	Unit	GII	XT-GII (Z,L)	GI	XT-GI	FF (K,W)	GI-P (M,H,X,Y)
Tensile	ASTM D412	PSI (min.)	2000	2200	2500	2700	2610	3626
Tensile	A31WI D412	MPa (min.)	13.8	15.2	17.2	18.6	18.0	25.0
Elongation	ASTM D412	% (min.)	400	450	450	500	400	450
Hardness	ASTM D2240 A	Shore A	60+-5	60+-5	60+-5	60+-5	70+-5	70+-5
Abrasion Index	DIN 53516	mm³ (max.)	175	175	150	120	90	120
Ozone	ASTM D1171	Pass / Fail	Pass	Pass	Pass	Pass	Pass	Pass
Town analysis Dames		Fahrenheit (°F)	-40 to 150*	-40 to 150*	-30 to 150*	-40 to 150*	-40 to 150*	-40 to 150*
Temperature Range		Celsius (°C)	-40 to 65*	-40 to 65*	-34 to 65*	-40 to 65*	-40 to 65*	-40 to 65*
Oil Swell	ASTM D471	% (max.)	N/A	N/A	N/A	N/A	N/A	N/A
Static Conductive	ISO 284	YES / NO	N/T	N/T	N/T	N/T	N/T	N/T

<sup>\*</sup> Maximum conveyed material temperature. Cycle times, belt cooling and other conditions may affect belt performance & life cycle.

### **Compound (International Designation)**

	Test Standard	Unit	MOR	XT-MOR	HH EPDM	HAHOR/VOR
Tomollo	ACTM D412	PSI (min.)	1800	1800	1800	1800
Tensile	ASTM D412	MPa (min.)	12.4	12.4	12.4	124
Elongation	ASTM D412	% (min.)	400	450	450	450
Hardness	ASTM D2240 A	Shore A	60+-5	60+-5	65+-5	65+-5
Abrasion Index	DIN 53516	mm³ (max.)	250	220	200	250
Ozone	ASTM D1171	Pass / Fail	Pass	Pass	Pass	Pass
T B		Fahrenheit (°F)	-40 to 150*	-40 to 150*	-30 to 400*	-40 to 150*
Temperature Range		Celsius (°C)	-40 to 65*	-40 to 65*	-34 to 204*	-40 to 65*
Oil Swell	ASTM D471	% (max.)	<100	<80	N/A	<10
Static Conductive	ISO 284	YES / NO	N/T	N/T	N/T	NO

<sup>\*</sup> Maximum conveyed material temperature. Cycle times, belt cooling and other conditions may affect belt performance & life cycle.

N/T Not tested





N/T Not tested

Industrial Conveyor Belts Cover Compounds 16 Industrial Conveyor Belts Cover Compounds 17



# **Cover Compounds**

#### **Flame-Resistant Services**

**FR** – A compound that meets the requirements of ASTM D-378 13.2 flame retardant test. Suited for below ground applications where fire retardant belt is required; allowed by USBM and MSHA to be used underground as long as it is not a coal mining operation.

**FR-MOR (Moderately Oil Resistant)** — A compound that meets the requirements of ASTM D-378 13.2 flame retardant test and delivers moderate oil resistance for oily coal or coke applications or product treated with oily additives for dust suppression.

HT-SBR – A compound that delivers excellent abrasion resistance with heat resistance to 300°F.

**GHS (Grain Handler Supreme)** – It features a high Nitrile composition, making it ideal to handle grains without worry. GHS is ideal for more oily applications like conveying crushed canola but is also well suited for use with mineral oil dust suppression systems.

#### **Food Grade Service**

**WFG-SBR (White Food Grade SBR)** — A compound designed for handling consumable food products, or for products that will be consumed by livestock. SBR offers good abrasion resistance. Cover meets FDA requirement. **Note: WFG-SBR is not static conductive.** 

#### **Special Purpose**

**TPG 45D (Tan Pure Gum Non-Marking)** — With an exceptionally high coefficient of friction, this tough compound is excellent where very high cut and gouge resistance is required, combined with a high demand for gripping material and where abrasion is a factor. Non-marking quality is also ideal for the timber products industry.

**TAN SBR 60D, TAN SBR 45D (Tan Non Marking SBR)** — With good tear and abrasion resistance, this non-marking SBR is good for handling products where marking is not permitted, such as paper handling, finished aluminum parts, planers, sanders, lumber and packaged goods. The coefficient of friction allows this compound to grip product even at steep inclines yet is an economical alternative to TPG. Available in a standard 60-durometer and a softer 45-durometer option. 45D offers 20% improved cover wear resistance and supports gripping action.



	Test Standard	Unit	FR	FR-MOR	HT-SBR	WFG-SBR	GHS
Tensile	ASTM D412	PSI (min.)	2000	2000	2030	2000	1800
rensile	ASTM D412	MPa (min.)	13.8	13.8	14.0	13.8	12.4
Elongation	ASTM D412	% (min.)	450	450	400	450	450
Hardness	ASTM D2240 A	Shore A	60+-5	60+-5	61+-5	60+-5	63+-5
Abrasion Index	DIN 53516	mm³ (max.)	200	200	140	250	250
Ozone	ASTM D1171	Pass / Fail	Pass	Pass	Pass	Pass	Pass
T D		Fahrenheit (°F)	-40 to 150*	-40 to 150*	-40 to 300*	-40 to 150*	-40 to 150*
Temperature Range		Celsius (°C)	-40 to 65*	-40 to 65*	-40 to 150*	-40 to 65*	-40 to 65*
Fire Retardant	MSHA CFR Title 30 Part 14		NO	NO	N/A	N/A	N/A
r ne returdunt	ASTM D 378 13.2		YES	YES	N/A	N/A	YES
Oil Swell	ASTM D471	% (max.)	N/A	<90	N/A	N/A	<10
Static Conductive	ISO 284	YES / NO	YES	YES	YES	NO	YES

<sup>\*</sup> Maximum conveyed material temperature. Cycle times, belt cooling and other conditions may affect belt performance & life cycle.

### **Compound (International Designation)**

	Test Standard	Unit	TPG 45D	Tan SBR 60D	Tan SBR 45D
Tamaila	ACTM D 412	PSI (min.)	3000	2000	1600
Tensile	ASTM D412	MPa (min.)	20.7	13.8	11.0
Elongation	ASTM D412	% (min.)	500	450	450
Hardness	ASTM D2240 A	Shore A	45+-5	60+-5	45+-5
Abrasion Index	DIN 53516	mm³ (max.)	250	250	200
Ozone	ASTM D1171	Pass / Fail	Pass	Pass	Pass
T D		Fahrenheit (°F)	-40 to 150*	-40 to 150*	-40 to 150*
Temperature Range		Celsius (°C)	-40 to 65*	-40 to 65*	-40 to 65*
Oil Swell	ASTM D471	% (max.)	N/A	N/A	N/A
Static Conductive	ISO 284	YES / NO	NO	NO	NO

<sup>\*</sup> Maximum conveyed material temperature. Cycle times, belt cooling and other conditions may affect belt performance & life cycle.



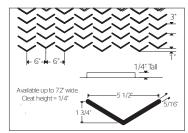


Industrial Conveyor Belts Belt Profiles 18 Industrial Conveyor Belts Belt Profiles 19

### **Belt Profiles**

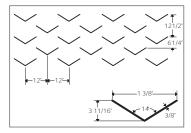
#### We have a profile to meet every need and a design that keeps product moving efficiently

When conveying product up an incline is critical, you need an integrally molded profile solution, where cleat and belt work as one homogenous unit. With LEGG profiles, you'll find high-performance designs that cater to a variety of product needs and conditions, from wood chips and sawdust to rocks, cattle feed and any other bulk material. Available in a wide variety of compound options.



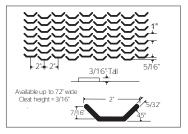
#### **V-CLEAT**

- > Excellent product traction and wear
- > Full width slitable construction
- > Handles wood chips, rocks, asphalt, dirt
- Available in all LEGG carcass options and most covers
- > 24" min. width



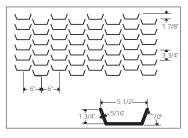
#### **SUPER V**

- > Offers cleats twice the width of our popular V-CLEAT
- > Full width slitable construction available up to 72" wide
- > Perfect for conveying wood chips, aggregate and asphalt
- > Available in all LEGG carcass options and most covers



#### **MINI-BITE**

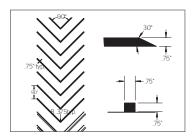
- > Excellent for bulk material, such as grain, nut hulls or sawdust
- > Full width slitable construction
- > Available in all LEGG carcass options and most covers
- > 22" min. width



#### **MAXI-BITE**

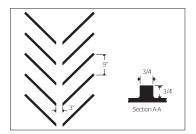
- > Takes more than a Mini-Bite Maxi-Bite takes it up a notch
- ) Aggressive ¼" tall cleat profile
- > Slitable construction is available up to 60" wide
- > Available in all LEGG carcass options and most covers
- > 42" min. width

### **Belt Profiles**



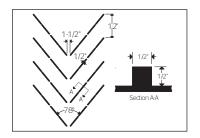
#### HERCULES

- > Sturdy option offers hours of dependable service
- ) <sup>3</sup>/<sub>4</sub> x <sup>3</sup>/<sub>4</sub>" Chevron style cleat moves bulk material efficiently up inclines
- Overlapping pattern and 60° bevel provides quiet and smooth return, while 9" spacing gives maximum material traction
- Available in Legend and Champion carcasses to carry wood chips, rocks or high animal fat cattle feed
- **>** Available with 24", 30", 36", 42" & 48" widths



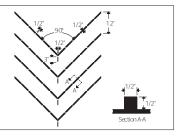
#### **SPLIT HERCULES**

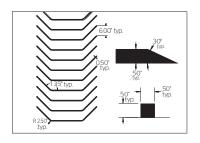
- Same overlapping pattern as HERCULES with a 3" cleating opening in the belt's center
- **)** Designed to run quiet and smooth on flat return idlers
- **>** Available with 24", 30", 36", 42" & 48" widths



#### **TITAN**

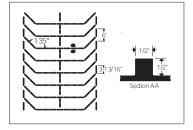
- Chevron-shaped cleats keep product centered as it's agitated during transport
- )  $\frac{1}{2}$  x  $\frac{1}{2}$ " cleat gives extra bite and offers excellent wear
- > Available in all LEGG carcass options and most covers
- **>** Available with 18", 24", 30", 36", 42", 48" & 60" widths





#### **MEGA-BITE**

- > ½ x ½" bucket pattern offers exceptional material bite
- > Integrally molded design ensures cleats won't come loose
- > Angled cleat ends with overlapping pattern enhance quiet, vibration-free return
- > Available in 24", 30" and 36" patterns on up to a 48" belt



#### **MEGA-BITE II**

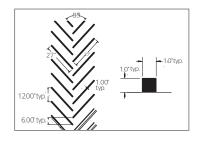
- **)** Offers extreme bite to move product up steep inclines
- > ½ x ½" cleats molded from top cover, won't come loose from the belt
- > Cleat pattern keeps product in belt center
- > 18", 24", 30", 36" and 42" patterns on up to a 48 x 50" belt
- **)** 42", 48", 54", 60" and 66" patterns on up to a 72" belt
- **>** Available in all LEGG carcass options and most covers





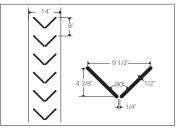
Industrial Conveyor Belts Belt Profiles 20 Industrial Conveyor Belts Belt Tops

### **Belt Profiles**



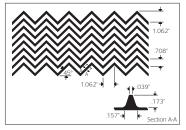
#### TRACT-R-TREAD

- > Cleat pattern offers incredible material bite while maximizing water and small material rollback, ideal for beet and potato pilers
- > Full 1 x 1" pattern helps carry large particle sizes up steep inclines
- > Great where water flow is essential
- > 24" and 36" patterns on up to a 48" belt
- > Available on any LEGG carcass and most compounds



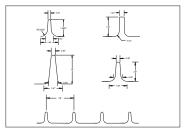
#### **STONE SLINGER**

- > Specifically developed for slinger conveyors
- > Aggressive %" tall cleat moves bulk material at high speeds
- **>** Cover compounds are available for various bulk materials such as aggregate or wood chips
- > Available in 8" and 10" cleat patterns



#### **CONTINUOUS CHEVRON**

- > Profile designed for round hay balers
- > Useful in multiple agricultural and industrial applications requiring grip
- Available in widths up to 60"
- > 24" min. width



#### **T-CLEATS**

- > Choose from a wide variety of cleat heights on any carcass
- > Integrally molded during initial curing for 100% homogenous product
- Center to center dimensions available on 6," 12," 18" and 24," with other centers available

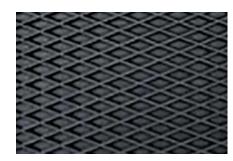


# **Belt Tops**

DIAMOND TOP • CONTINUOUS CHEVRON • ROUGH TOP

#### Strong, durable and worth every penny

Our complete line of belt tops with light or heavyweight carcasses are unlike typical belt tops you'll find in the industry. That's because LEGG belt tops are built for strength and durability for a variety of applications. So if you're handling lighter weight materials, like bags of carrots or potato chips, LEGG has a belt top that meets your strength and reliability needs. At LEGG, we know the solution that works for carrots is not the right solution for handling timber, cement, engine blocks or other materials. That is why LEGG's range of profile cover options offer maximum strength with the durability and reliability to get the tough jobs done.











21

Industrial Conveyor Belts Vacuum Filter Belts 22 Industrial Conveyor Belts Vacuum Filter Belts 23

### **Vacuum Filter Belts**

#### **Proven Performance in Any Dewatering Processes**

Vacuum filter belts from LEGG are specifically designed to separate liquids and solids on horizontal belt filter systems. These belts support the filter cloth, the filter cake and the filtrate within integrated skirts or with additional curbing. The filtrate is removed by vacuum through the molded grooves in the top cover and the drainage holes in the center of the belt.

#### > Fabric-Free Zone

In most cases, the textile carcass of the belt must be protected from the filtered media. LEGG offers filter belts with a textile-free drainage zone. The textile carcass is completely embedded in rubber and separated from both the drainage holes and the belt edges, thus protecting the carcass from both chemical and thermal degradation.

#### ) Bottom Guide

Depending on the filter design, the transport belt often requires either a single guide or multiple guides on the bottom of the belt to assist in tracking and to keep the drainage holes centered over the vacuum box. Drainage holes run through the transport belt and bottom guide, allowing access to the collection duct.

#### **Filter Belts**

LEGG manufactures the perfect solution for traditional horizontal belt filters in widths up to 60 inches (1.5m). Our filter belts are engineered with molded drainage grooves, a fabric-free drainage zone, an optional bottom guide and in a variety of premium rubber compounds suitable for any HBF application.

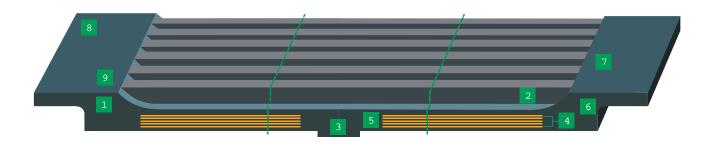
#### **Available Applications**

- Mining
- Chemical Processing
- > Power Generation
- Waste Management
- > Pharmaceuticals

	Complete List of Filter Belts
904251	3/300PP EPDM 1R2L 12" B25 30"
904252	4/400PP EPDM 1R2L 24" B25 24"
904258	4/400PP EPDM 5R2L 24" B50
907425	4/400PP EPDM(9801) 1R2L 2.750 FFZ 54"B100
908044	4/400PP EPDM 1R2L 47" B50 2.275" FFZ
918057	4/500PN HTSBR(4529) 5R2L 24: B50

### **Belt Construction**

LEGG offers a variety of filter belt widths and constructions. Starting with a construction 24 inches wide with a single bottom guide, to a construction 60 inches wide with five bottom guides, each LEGG filter belt is tailor-made for your specific model of horizontal vacuum filter.



#### **Properties**

#### 1. Cover Compound

- ) Good chemical resistance
- **)** High temperature resistance

#### 2. Molded transverse groove system

- > Smooth surface
- **>** Perfect pitch and dimensions of grooves and lands

#### 3. Bottom guide

> Single and multiple guide strip locations available

#### 4. 100% polyester carcass

- ) High strength
- ) Low elongation
- > Laterally stable

#### 5. Fabric-free drainage zone

- **>** Same physical properties as rubber covers
- Punching or drilling of center holes does not expose fabric carcass

#### 6. Full rubber edge

**)** Good lateral stability when guide pulleys are used

#### 7. Un-grooved edge zone

 Suitable for cold bonding or vulcanizing rubber curbing onto the belt

#### 8. Upward folding skirting

- > Edge zone can be folded up to desired containment height
- No need to attach additional profiles
- **)** Without curbing, required drive and tail pulley diameters are reduced

# 9. Smooth and seamless transition between base belt surface and side curbing

- > Smooth and straight alignment of the filter cloth
- Minimal air stream leakage between belt and filter cloth



**Profile Drainage Channels** 





#### LEGG

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